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BEFORE THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT	:	Srinivas V. R. Gutta	DOCKET NO.:	US010125
SERIAL NO.	:	09/875,594	EXAMINER :	Issac M. Woo
FILED	:	June 6, 2001	ART UNIT :	2166
FOR	:	NEAREST NEIGHBOR RECOMMENDATION METHOD AND SYSTEM		

RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF

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Sir:

In Response to the "Notice of Non-Compliant Appeal Brief" dated December 8, 2006, Applicants enclose Appeal Brief originally submitted on September 28, 2006 with corrections deemed to be non-compliant.

No additional fees are believed to be necessitated by the foregoing amendment. However, should this be erroneous, authorization is hereby given to charge Deposit Account No. 502-470 for any underpayment, or credit any overages.

Respectfully submitted,
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Date: January 8, 2007

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

In re the Application

Inventor	:	**Srinivas V. R. Gutta**
Application No.	:	**09/875,594**
Filed	:	**June 6, 2001**
For	:	**NEAREST NEIGHBOR RECOMMENDATION METHOD AND SYSTEM**

APPEAL BRIEF

On Appeal from Group Art Unit 2166

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Date: January 8, 2007

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I. REAL PARTY IN INTEREST

The real party in interest is the assignee of the present application, U.S. Philips Corporation, and not the party named in the above caption.

II. RELATED APPEALS AND INTERFERENCES

With regard to identifying by number and filing date all other appeals or interferences known to Appellant which will directly effect or be directly affected by or have a bearing on the Board's decision in this appeal, Appellant is not aware of any such appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-3, 9-11 and 17-22 have been presented for examination. All of these claims are pending, stand finally rejected, and form the subject matter of the present appeal. The remaining original claims 4-8 and 12-16 had been removed from further consideration during the prosecution of this applicant and are neither presented for examination nor the subject to review in the present appeal

IV. STATUS OF AMENDMENTS

The Amendment after the Final Office Action filed June 28, 2006 has been entered. No amendments were made to the claims in the filed Amendment.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The instant application recites, as represented by the independent claims 1, 2, 3, 9, 10, 11, 17, 18 and 19, methods (claims 1-3), computer systems (claims 9-11) and computer program products (claims 17-19) for recommending a program. Claims 20 and

21 depend from independent claim 1 and claim 22 depends from claim 2 and recites further aspects of the invention claimed.

Claim 1 recites a method of recommending a program (see page 1, para.**[0009]**) comprising the steps of receiving a first program record representing a first program, the first program recording having at least one key field, receiving a plurality of program records, at least one of which having at least one key field, converting the key fields to a feature value, (Fig. 3, step S54 and page 2, para.**[0024]**), identifying a second program that qualifies as a nearest neighbor of the first program record using the feature value, the key fields and a distance measure (Fig. 4, step S62 and page 3, equation 1 and para.**[0027]**), and determining based on the second program record whether to recommend the first program. (Fig. 4, S64, S66, and page 3, para.**[0032]** and page 4, para. **[0034]**).

Claim 2 recites a method (see page 4, para.**[0038]**)similar to that recited in claim 1, wherein a number of program records, N, are identified that qualify as a nearest neighbor of the first program record using the feature value, the key fields and a distance measure (see Fig. 5, Step S72) and determining based on the N program records whether to recommend the first program (see Fig.5, StepS76).

Claim 3 recites a method (see page 1, paragraph **[0010]** and page 4, para.**[0038]**) similar to that recited in claim 1, wherein a cluster of program records are identified that qualify as a nearest neighbor of the first program record using the feature value, the key fields and a distance measure (see Fig. 6, S82) and determining based on the cluster of program records whether to recommend the first program. (see Fig. 5, Step SS86).

Claims 9, 10 and 11 recite computer systems (Fig. 2, item 30) comprising a memory (Fig. 3, item 34) for storing a database (Fig. 2, items 35, 36) of a plurality of records and a processor for executing the method steps recited in claims, 1, 2 and 3, respectively. (see and Figure 2 and page 2, para.**[0021]**, i.e., "Fig. 2 illustrates one embodiment of computer 30").

Claims 17, 18 and 19 recite computer program products in a computer readable medium (Fig. 2, item 34), which when loaded into a computer system (Fig. 2, item 30) instruct the computer system to execute the method steps recited in claims 1, 2 and 3, respectively. (see para.**[0021]**, i.e., "memory 34 is a computer readable medium (e.g., a read-only memory , an erasable read-only memory, a random access memory, a compact disk, a floppy disk, a hard disk drive and other known forms)...).

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VI. GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL

The single ground of rejection to be reviewed on appeal is:

1. Claims 1-3, 9-11 and 17-22 stand rejected under 35 USC §102(e) as being anticipated by Uehara (US Published Patent Application no. 2002/0056095).

VII. ARGUMENT

I. Rejection of claims 1-3, 9-11 and 17-22 under 35 USC §102

The rejection of claims 1-3, 7-11 and 17-22 is in error because the reference fails to show a limitation cited in the independent claims and the claims depending therefrom.

I.a. Rejection of claim 1 under 35 USC §102

With reference to claim 1, which is typical of the remaining independent claims, this claims recites a method of recommending a program comprising the steps of receiving a first program and a plurality of other program records, each having at least one key filed, converting the key fields to a feature value, identifying a second program that qualifies as a nearest neighbor of the first program record using the feature value, the key fields and a distance measure and determining, based on the second program record, whether to recommend the first program.

Uehara discloses digital video contents browsing apparatus and method wherein video contents distributed by digital broadcasting are obtained and divided into video contents segments on a channel basis, a program basis or a predetermined time basis. A collection of icons corresponding to the respective video contents segments are displayed in accordance with a particular viewpoint when it is arranged in the position of the classification and arrangement results. The classification and arrangement are calculated according to the feature value of each video contents segment. Icons corresponding to the video contents segments are re-created by newly setting a division basis arbitrarily, the feature values of the video contents on the newly set division basis are extracted and icons corresponding to video contents segments are rearranged for display. (see Abstract).

Uehara further discloses a "filtering part, which refers to the user profile information managed by the user profile management part and selects video contents complying with the conditions specified by the user profile information from the video contents obtained by the video contents obtaining part." (see para.**[0059]**).

Uehara Fails to Anticipate the Claimed Invention

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim*." Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 221 USPQ 481, 485 (Fed. Cir. 1984) (emphasis added).

The Final Office Action refers to Figures 6A-6C for teaching the elements recited in the claims. More specifically, Figures 6A-6C teach a two-dimensional classification and arrangement space in which the feature value "genre" is set on one axis ... and the feature value "program" is set on another axis. Figure 6B discloses "a three-dimensional classification and arrangement space, in which a color ratio feature value is set on the horizontal and vertical axes, and a time feature value is set on an axis in the depth direction. So, the feature value regarding a color ratio is a vector value obtained by quantifying a color ratio in a representative frame image of each video contents segment as a frequency vector. The time feature value corresponds to a broadcasting time of each video contents segment (fig. 6A-6C, page 5, sections 0070-0077). (see Final Office Action, page 2, line 13-page 3, line 10).

Contrary to the position stated in the Final Office Action and maintained in the Advisory Action, Uehara fails to disclose using feature vectors of a plurality of programs to recommend a first program based on feature values, key fields and a distance measure as is recited in the claims.

More specifically, Uehara discloses that a program or video contents may be selected based on the user profile information, i.e., matching the features of the programs to the user profiles. See, para.**[0091]** "[i]n FIG. 7, video contents distributed by digital broadcasting and program data accompanying the video contents are obtained by a video

contents obtaining part 40 via a digital broadcasting receiver (Operation 700). The obtained program data is compared with the user profile information stored in the user profile storing part 41 b the filtering part 42.) (emphasis added). See also, paragraphs **[0094]** "[a] user inputs an operation with respect to the contents of the classification and arrangement space display by using the operation input device 58 and the classification and arrangement display part 48 determines the contents of the operation (Operation 805)" and **[0096]**, "[f]urthermore, in the case where the content of the operation is to narrow the currently displayed collection of video contents segments, the classification and arrangement display part 48 narrows the display target based on the conditions given by a user through the operation input device 58."(emphasis added).

Uehara, accordingly, discloses arranging the features and using information in a user profile, or user inputs, to recommend a program

Uehara fails to anticipate the invention recited in claim 1, as Uehara fails to disclose all the elements claimed. Uehara fails to disclose using feature vectors of plurality of programs to provide a program recommendation, as is recited in claim 1. .

In view of the above, applicant submits that claim 1 is patently distinguishable and allowable over the teaching of Uehara. Applicant respectfully requests that this Honorable Board reverse the position held by the Office in this matter and witdraw the rejection and allow the aforementioned claim 1.

I.b. Rejection of independent claims 2, 3, 8, 9,10 18,19 and 20 under 35 USC §102

With regard to the remaining independent claims, these claims recite subject matter similar to that recited in claim 1 and were rejected for the same reason used in

rejecting claim 1. Thus, remarks made in response to the rejection of claim 1 are also applicable in response to the rejection these claims and are reasserted, as if in full, herein.

For at least this reason, applicant respectfully requests that this Honorable Board reverse the position held by the Office in this matter, withdraw the rejection and allow the aforementioned claims.

I.c. Rejection of dependent claims 21-23 under 35 USC §102

With regard to the remaining claims, these claims ultimately depend from the independent claims and have been rejected for the same reason.

Applicant respectfully submits that these claims are allowable at least for their dependence upon allowable base claims, without even contemplating the merits of the dependent claims, for reasons analogous to that held in *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) (if an independent claim is non-obvious under 35 U.S.C. §103(a), then any claim depending therefrom is non-obvious).

For at least this reason, applicant respectfully requests that this Honorable Board reverse the position held by the Office in this matter and withdraw the rejection and allow the aforementioned claims.

VIII. CONCLUSION

In view of the above analysis, it is respectfully submitted that the referenced teachings fail to anticipate the subject matter of any of the present claims. Therefore, reversal of all outstanding grounds of rejection and allowance of the claims is respectfully solicited by this Honorable Board.

Respectfully submitted,
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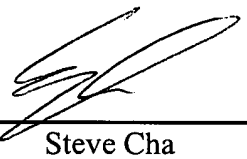

Date: January 8, 2007

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IX. CLAIMS APPENDIX

The claims that are the subject of this appeal are as follows:

Claim 1. A method, operable on a computer system, for determining whether to recommend a program, said method comprising the steps of:

receiving a first program record representing a first program, wherein the first program record includes at least one key field;

retrieving a plurality of program records from a database, wherein at least one of the program records includes at least one key field;

converting each key field of the first program record into a feature value;

identifying a second program record of the plurality of program records that qualifies as a nearest neighbor of the first program record using the feature value, the key fields of the plurality of program records and a distance measurement method; and

determining, based on the identified second program record, whether to recommend said first program.

Claim 2. A method, operable on a computer system, for determining whether to recommend a program, said method comprising:

receiving a first program record corresponding to a first program, wherein the first program record includes at least one key field;

retrieving a plurality of program records from a database wherein each program record includes at least one key field;

converting each key field of the first program record into a feature value;

determining a N number of program records of the plurality of program records that qualify as the nearest neighbors of the first program record using the feature values, the key fields of the plurality of program records, and a distance measurement method; and

determining, based on the N number of program records, whether to recommend said first program.

Claim 3. A method, operable on a computer system, for determining whether to recommend a program, said method comprising:

receiving a first program record corresponding to a first program, wherein the first program record includes at least one key field;

retrieving a plurality of program records from a database wherein each program record includes at least one key field;

converting each key field of the first program record into a feature value;

determining a cluster of program records of the plurality of program records that qualifies as a nearest neighbor of the first program record using the feature values, the key fields of the plurality of program records, and a distance measurement method; and

determining, based on the cluster of program records, whether to recommend said first program.

Claims 4. - 8 (canceled)

Claim 9. A computer system, for determining whether to recommend a program, said computer comprising:

a memory for storing a database, the data base storing a plurality of program records, wherein each program record includes at least one key field; and

a processor for containing a module, the module operable to determine a first program record of the plurality of program records that qualifies as a nearest neighbor, using a distance measurement method, of a second program record in response to a reception of the second program record by said computer system using the key fields of the program records, said module further operable to determine, based on the first program record, whether to recommend a program represented by said second program record.

Claim 10. A computer system for determining whether to recommend a program, said computer comprising:

a memory for storing a database, the database storing a plurality of program records, wherein each program record includes at least one key field; and

a processor for containing a module, the module operable to determine a N number of program records of the plurality of program records that qualify as the nearest neighbors, using a distance measurement method, of a first program record in response to a reception of the first program record by said computer system using the key fields of the program records, said module further operable to determine, based on the N number of program records, whether to recommend said first program record.

Claim 11. A computer system for determining whether to recommend a program, said computer comprising:

a memory for storing a database, the database storing a plurality of program records, wherein each program record includes at least one key field; and

a processor for containing a module, the module operable to determine a cluster of program records of the plurality of program records that qualifies as a nearest neighbor, using a distance measurement method, of a first program record in response to a reception of the first program record by said computer system using the key fields of the program records, said module further operable to determine, based on the cluster of program records, whether to recommend said first program record.

Claims 12 – 16 (canceled)

Claim 17. A computer program product in a computer readable medium for determining whether to recommend a program, said computer program product comprising computer readable code which when loaded into a computer system, instructs the computer system to perform the steps of:

receiving a first program record corresponding to a first program, wherein the first program record includes at least one key field;

retrieving a plurality of program records from a database wherein at least one of the program records includes at least one key field;

converting each key field of the first program record into a feature value;

computer readable code for determining a second program record of the plurality of program records that qualifies as a nearest neighbor of the first program record using the feature value, the key fields of the plurality of program records and a distance measurement method; and

determining, based on the second program record, whether to recommend said first program.

Claim 18. A computer program product in a computer readable medium for determining whether to recommend a program, said computer program product comprising computer readable code which when loaded into a computer system, instructs the computer system to perform the steps of:

receiving a first program record corresponding to a first program, wherein the first program record includes at least one key field;

retrieving a plurality of program records from a database, wherein at least one of the program records includes at least one key field;

converting each key field of the first program record into a feature value;

determining a N number of program records of the plurality of program records that qualify as the nearest neighbors, using a distance measurement method, of the first program record using the feature value and the key fields of the plurality of program records; and

determining, based on the N number of program records, whether to recommend said first program.

Claim 19. A computer program product in a computer readable medium for determining whether to recommend a program, said computer program product comprising computer readable code which when loaded into a computer system, instructs the computer system to perform the steps of:

receiving a first program record corresponding to a first program, wherein the first program record includes at least one key field;

retrieving a plurality of program records from a database, wherein at least one of the program records includes at least one key field;

converting each key field of the first program record into a feature value;

determining a cluster of program records of the plurality of program records that qualifies as a nearest neighbor, using a distance measurement method, of the first program record using the feature value and the key fields of the plurality of program records; and

determining, based on the cluster of program records, whether to recommend said first program.

Claim 20. The method of claim 1, wherein the determining whether to recommend comprises comparing a number of positive counts for said identified second program record to a number of negative counts for said identified second program record.

Claim 21. The method of claim 1, wherein the determining whether to recommend makes a determination, said method further comprising generating a recommendation of said first program if said determination is to recommend.

Claim 22. The method of claim 2, wherein the determining whether to recommend makes a determination, said method further comprising recommending said first program if said determination is to recommend.

X. EVIDENCE APPENDIX

No additional evidence, other than that provided by the Office, has been presented in this matter.

X. RELATED PROCEEDING APPENDIX

No related proceedings are pending and, hence, no information regarding same is available.